

# **Combination Therapy**

**Dr. Aastha Mishra**

## Introduction:-

The application of two therapeutic modalities at the same time, and at the same site is described as combination therapy.

Ultrasonic therapy is frequently used with other modalities including hot packs, cold packs and electric nerve and muscle stimulating currents.

The most widely used combinations are those of ultrasonic with some form of nerve and muscle stimulating current and ultrasound and interferential.

Hot packs and high intensity ultrasonic are used primarily for their thermal effects.

Heat is effective in reducing muscle spasm and muscle guarding.

It also has an analgesic effect and is useful in pain reduction since hot packs produce an increased blood flow superficially, thus creating a less dense medium for transmission of ultrasonic, attenuation may be increased and depth of penetration of ultrasonic reduced.

Cold packs are most often used for analgesia and to decrease acute blood flow after injury. Because cold is such an effective analgesic, caution must be exercised when using ultrasonic at higher intensities that produce thermal effects, since patient's perception of temperature and pain is diminished

However in treating acute and postacute injuries, the combination of cold to reduce blood flow (i.e. swelling) and produce analgesia, and low intensity ultrasound, for its nonthermal effects that promote soft tissue healing, may be the treatment of choice.

Since cold produces a decrease in blood flow superficially and thus a more dense medium, superficial attenuation of ultrasonic may be decreased, facilitating transmission to deeper tissues.

